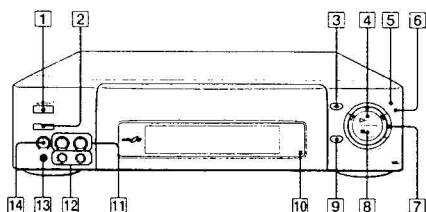


Index to parts and controls

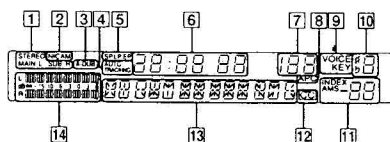
Refer to the pages indicated in () for details.

Front panel, with cover closed



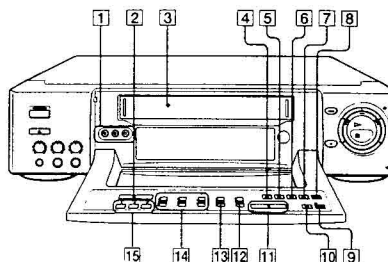
- 1 ON/STANDBY switch/indicator
- 2 EJECT button (20)
- 3 HI-SPEED REW button (20)
- 4 PLAY button (20)
- 5 TIMER REC (recording) indicator (23)
- 6 REC (recording indicator)
- 7 DUAL MODE SHUTTLE ring (20)
- 8 STOP button (20)
- 9 PAUSE button (20)
- 10 Remote sensor (6)
- 11 MIC VOL 1/2 controls (36)
- 12 MIC IN 1/2 jacks (40)
- 13 CONTROL jack (40)
- 14 ECHO control (36)

Display window



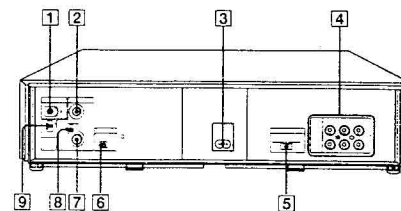
- 1 Sound indicators (26)
- 2 NICAM indicator (25)
- 3 A-DUB (audio dubbing) indicator (45)
- 4 AUTO TRACKING indicator (34)
- 5 Tape speed indicators (23)
- 6 Linear time counter/Clock (15, 20)
- 7 Line/Programme position indicator
- 8 APC indicator (34)
- 9 VOICE/KEY indicator (40)
- 10 Key indicators (40)
- 11 INDEX SEARCH or KARAOKE PROGRAM indicator (35)
- 12 Tape indicator
- 13 Colour system, TV system indicator (8)
- 14 Audio channel/sound level indicator (21)

Front panel, with cover opened



- 1 LINE IN 2 jacks (43)
- 2 KEY/VOICE button (40)
- 3 Tape compartment
- 4 AUDIO DUB button (45)
- 5 APC button (34)
- 6 TAPE SPEED button (22)
- 7 QUICK TIMER button (23)
- 8 TIMER REC ON/OFF button (23)
- 9 REC button (22)
- 10 INPUT SELECT button (11)
- 11 PROGRAM buttons (11)
- 12 PICTURE switch (34, 44)
- 13 COLOR SYSTEM switch (19)
- 14 KARAOKE switches
SURROUND switch (39)
MODE switch (39)
ON/OFF switch (37)
- 15 KEY CONTROL (b/t/#) buttons (40)

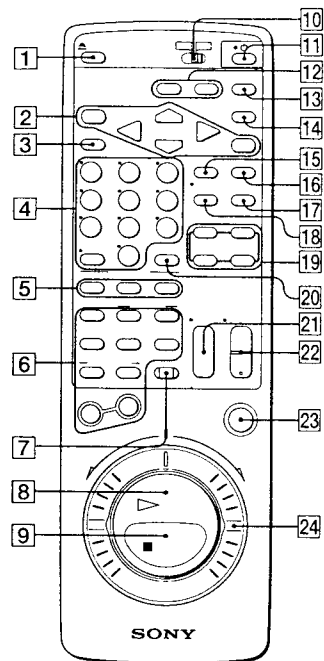
Rear panel



- 1 RF CHANNEL screw (11)
- 2 AERIAL OUT connector (7)
- 3 AC IN connector (7)
- 4 AV (AUDIO/VIDEO) connector (7)
- 5 NTSC PB switch (10)
- 6 TV SYSTEM AUTO M ON/OFF switch (10)
- 7 AERIAL IN connector (7)
- 8 LOCAL/DX switch (18)
- 9 TV SYSTEM K/I/G selector (10)

Index to parts and controls (continued)

Remote commander

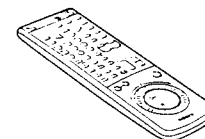


- 1 EJECT button (20)
- 2 Menu operation buttons (12)
MENU button
CURSOR
buttons
EXECUTE button
- 3 DISPLAY button (20)
- 4 Programme number buttons
and - / - button (22)
- 5 TRACKING buttons (34)
 / NORMAL / SLOW
(STILL ADJUST) buttons
AUTO / MANUAL button
- 6 Tape transport buttons
 SLOW buttons (32)
REPLAY button (33)
 / FRAME buttons
(32)
 HI-SPEEDREWIND
button (20)
 / INDEX
SEARCH buttons (35)
 / SEARCH buttons
(20)
- 7 REC (recording) button
(22)
- 8 PLAY button (20)
- 9 STOP button (20)
- 10 TV/VTR remote control
switch (6)
- 11 (on/standby) button
- 12 TIMER REC buttons
CLEAR button (30)
ON/OFF button (23)
- 13 TV/VTR button
- 14 COUNTER RESET button
(21)
- 15 TAPE SPEED button (22)
- 16 QUICK TIMER button (23)
- 17 AUDIO DUB button (45)
- 18 AUDIO MONITOR button
(21)
- 19 KARAOKE buttons (40)
KEY / VOICE button
 (standard) button
 (flat) button
(sharp) button
- 20 INPUT SELECT button (11)
- 21 VOL (volume) button
- 22 PROG (programme) button
(11)
- 23 PAUSE button (20)
- 24 DUAL MODE SHUTTLE ring
(20)

Step 1 Unpacking

Check that you have the following items:

• Remote commander



• R6 (size AA) batteries



• Aerial cable



• Audio/video (AV) cable



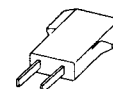
• Mains lead



• Microphone

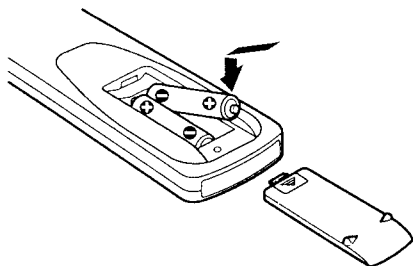


• Mains plug adapter



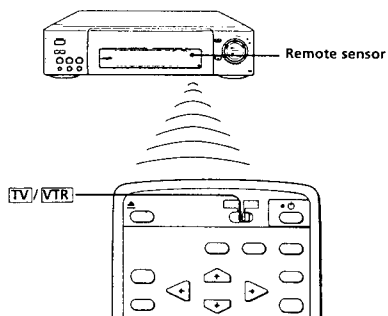
Step 2 Setting up the remote commander

Insert two R6 (size AA) batteries by matching the + and - on the batteries to the diagram inside the battery compartment.



Using the remote commander

You can use this remote commander to operate this VTR and a Sony TV. Buttons on the remote commander marked with a dot (•) can be used to operate your TV. Certain Sony TV models may not allow you to use the -/-- (ten's digit) button to select TV channels.

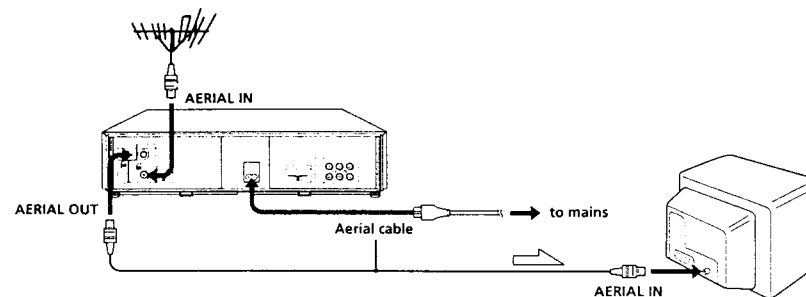


To operate	Set [TV/VTR] to
the VTR	VTR and point at the remote sensor on the VTR
a Sony TV	TV and point at the remote sensor on the TV

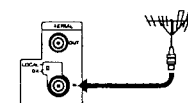
Notes

- With normal use, the batteries should last for approximately three to six months.
- If you do not use the remote commander for an extended period of time, remove the batteries to avoid possible damage from battery leakage.
- Do not use a new battery with an old one.
- Do not use different types of batteries.

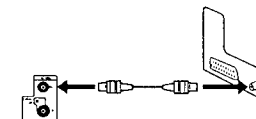
Step 3 Connecting the VTR



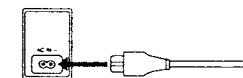
- 1 Disconnect the aerial input cable from your TV and connect it to AERIAL IN of the VTR.



- 2 Connect AERIAL OUT of the VTR and the aerial input of your TV using the supplied aerial cable.

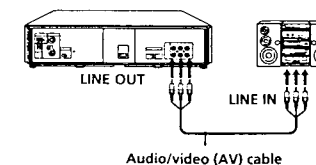


- 3 Connect AC IN of the VTR and the mains supply using the mains lead.
You've completed the basic hookup to watch and record TV programmes.



Additional connections

You can improve sound quality by connecting to a stereo system as shown on the right.



Step 4 Channel setup map and chart (continued)

Notes

- When inputting a video signal (via either playback, line input or tuner), the on-screen menus appear regardless of the NTSC PB switch setting.
- If you are not sure of the colour system of your TV, refer to the map on page 8 and the chart on page 9.
- If your TV is compatible with the SECAM system, the on-screen menus may be displayed in black-and-white.

Tip

- You can play back tapes recorded with the NTSC colour system on monitors as long as the NTSC PB switch is set accordingly.

Setting the NTSC PB and TV SYSTEM switches to match your TV system

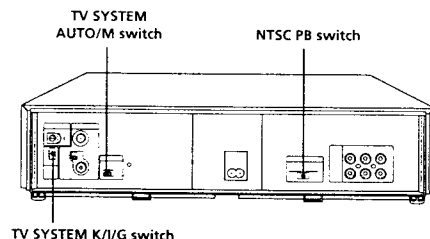
To view the on-screen menus when using a TV compatible with the PAL, SECAM, or MESECAM system, set the NTSC PB switch to ON PAL TV.

For your TV to receive the correct signal from your VTR, you must set the TV SYSTEM K/I/G output selector on the rear of the VTR correctly. Refer to page 9 to make settings that match the TV system in your area. If the TV SYSTEM K/I/G output selector is set to the wrong position, a rustling sound or no sound at all is heard.

When using a TV compatible with the NTSC system, set the NTSC PB switch to NTSC 3.58. To play back and record tapes using the NTSC 3.58 system, set the TV SYSTEM AUTO/M switch to ON. The NTSC 3.58 signals are then output using the NTSC (M) system. If the TV SYSTEM AUTO/M switch is set to OFF, the NTSC 3.58 signals are output using the system selected with the TV SYSTEM K/I/G output selector.

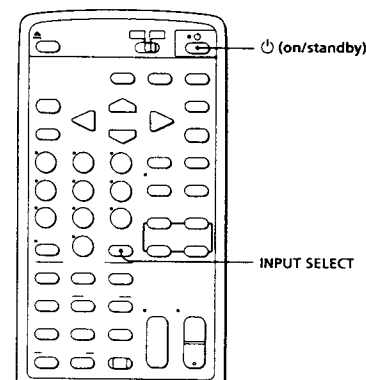
Set the NTSC PB switch according to the type of TV you have.

Your type of TV	Set the NTSC PB switch to
PAL-compatible TV system	ON PAL TV
NTSC 4.43-compatible TV system	NTSC 4.43
NTSC 3.58-compatible TV system	NTSC 3.58



Step 5 Tuning the TV to your VTR

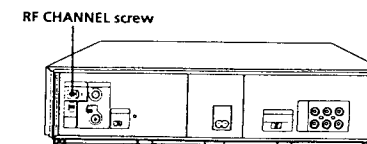
If you have connected the VTR to your TV using the AV (audio/video) cable, skip this step.



- Press **⏻ (on/standby)** to turn on the VTR.
- Press **INPUT SELECT** until **"L2"** appears in the display window.
- Turn on your TV and select a programme position for video playback.
- Tune the TV within the adjustable RF channel output range so that a grey screen appears on the TV screen (see page 9). Refer to your TV manual for tuning instructions. You have now tuned your TV to the VTR. Whenever you play a tape, set the TV to the programme position selected in step 3 above.
- Press **INPUT SELECT** until **"L2"** disappears and a programme number appears instead.

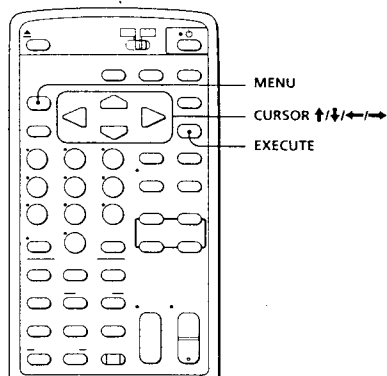
To obtain a clear grey screen

The grey screen may not appear clearly in step 4 above. In this case, turn the RF CHANNEL screw at the rear of the VTR with a screwdriver, to a position where the TV clearly displays a grey screen.



Step 6 Selecting the language

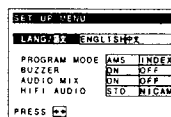
If you prefer Chinese to English, you can change the on-screen language.



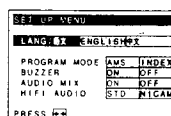
- 1** MENU Press MENU.
The following menu appears on the TV screen.



- 2** CURSOR Press CURSOR $\uparrow/\downarrow$ to move the cursor (I) to SET UP MENU, then press EXECUTE.
The SET UP MENU appears on the TV screen.



- 3** CURSOR Press CURSOR $\uparrow/\downarrow$ to move the cursor (I) to LANG/中文.

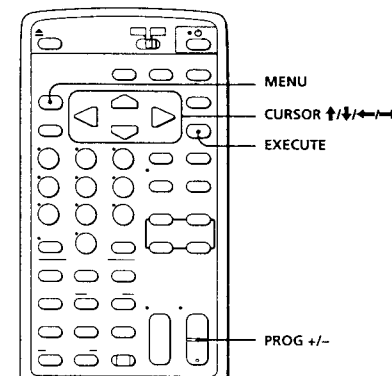


- 4** CURSOR Press CURSOR $\leftarrow/\rightarrow$ to select ENGLISH or 中文, then press EXECUTE.



Step 7 Tuning the VTR to TV channels

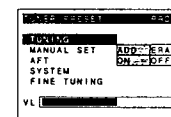
Now you can set your VTR to receive broadcast channels using the on-screen display.



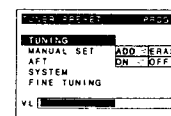
- 1** MENU Press MENU.
The following menu appears on the TV screen.



- 2** CURSOR Press CURSOR $\uparrow/\downarrow$ to move the cursor (I) to TUNER PRESET, then press EXECUTE.



- 3** PROG Press PROG +/- to select the programme position.
Press until the desired programme position number appears on the TV screen.



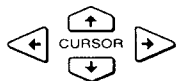
- 4** CURSOR Press CURSOR $\uparrow/\downarrow$ to move the cursor (I) to TUNING.
The tuning bar appears on the TV screen.



(continued)

Step 7 Tuning the VTR to TV channels (continued)

5

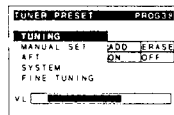


Press **CURSOR** $\leftarrow/\rightarrow$ to start tuning.

The VTR starts searching for a channel. Press **CURSOR** $\rightarrow$ to scan in the order VL $\rightarrow$ VH $\rightarrow$ U. To reverse the scanning order, press **CURSOR** $\leftarrow$.

For details on channels, see the chart on page 9. If you live in an area that receives both PAL and NTSC broadcasts, the screen may appear distorted for a short moment when the VTR starts tuning in the other colour system.

When the VTR finds a channel, its playback picture is displayed on the TV screen for five seconds. If you do not want to allocate this channel to the selected programme position, press **CURSOR** $\leftarrow/\rightarrow$ to keep scanning. When you find the desired channel, proceed to step 6.

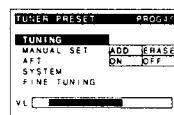


6



Press **PROG** $\pm$.

This allocates the channel to the selected programme position. Select a new programme position, and repeat steps 4 to 7 to allocate another channel.



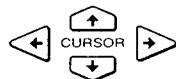
7



Press **EXECUTE** to finish the tuning session.

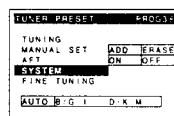
If a rustling sound or no sound at all is heard during playback

1

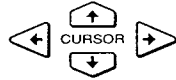


Repeat steps 1 and 2 on page 13, then press **CURSOR** $\uparrow/\downarrow$ to move the cursor (I) to **SYSTEM**.

The supported TV systems are displayed on the TV screen, and the default setting is AUTO. Under certain conditions you may have to enter which TV system is being used. If you do not select the correct TV system, a rustling sound or no sound at all is heard during playback.

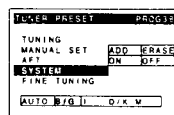


2



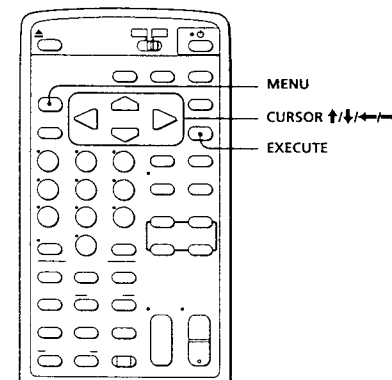
Press **CURSOR** $\leftarrow/\rightarrow$ to highlight the TV systems until you've selected one that lets you hear the sound on the audio track. Then press **EXECUTE**.

When you press **EXECUTE**, the TV system setting is reset to AUTO.



Step 8 Setting the clock

You must set the time and date on the remote commander to be able to use the timer recording features properly.



1

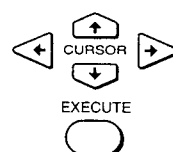


Press **MENU**.

The main MENU appears on the TV screen.

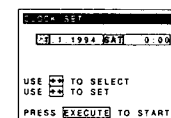


2

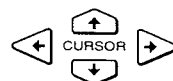


Press **CURSOR** $\uparrow/\downarrow$ to move the cursor (I) to **CLOCK SET**, then press **EXECUTE**.

The CLOCK SET menu appears on the TV screen, and the day is highlighted.

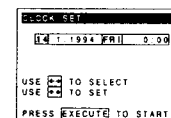


3

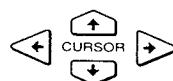


Set the day using **CURSOR** $\uparrow/\downarrow$.

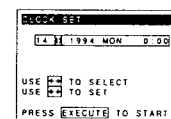
The day of the week is set automatically.



4



Press **CURSOR** $\rightarrow$ to highlight the month. Set the month using **CURSOR** $\uparrow/\downarrow$.



(continued)

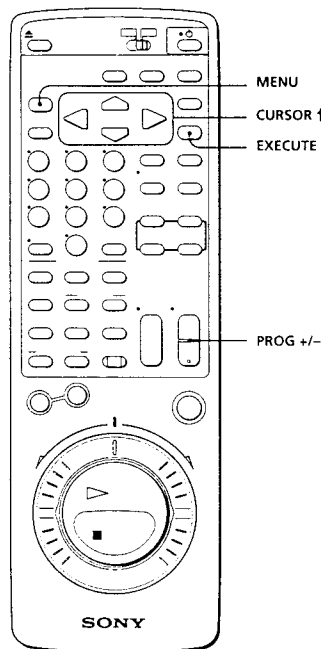
Step 8 Setting the clock (continued)

- 5**  Press **CURSOR** → to highlight the year.
Set the year using **CURSOR** ↑/↓.
- 6**  Press **CURSOR** → to highlight the hour.
Set the hour using **CURSOR** ↑/↓.
- 7**  Press **CURSOR** → to highlight the minutes.
Set the minutes using **CURSOR** ↑/↓.
- 8**  Press **EXECUTE** to start the clock.

Note

- The menu disappears automatically if you don't proceed for more than one minute.

Additional tuning instructions



If the picture is not clear

Normally, the Auto Fine Tuning (AFT) function automatically tunes in channels clearly. If, however, the picture is not clear, you may also use the manual tuning function.

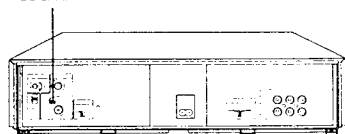
- Press **PROG +/-** to select the programme number for which you cannot obtain a clear picture.
- Press **MENU**, then select **TUNER PRESET** and press **EXECUTE**.
- Select **FINE TUNING**. The fine tuning meter appears.



- Press **CURSOR** ←/→ to get a clearer picture, then press **EXECUTE**. Note that the AFT (Auto Fine Tuning) setting switches to OFF.

Additional tuning instructions (continued)

LOCAL/DX switch



If the TV signal is too strong

Set the LOCAL/DX switch on the rear of the VTR to LOCAL.

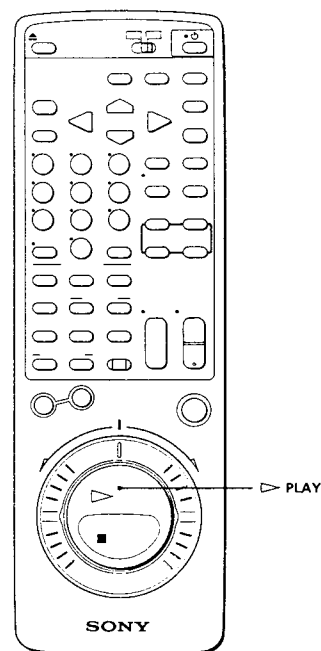
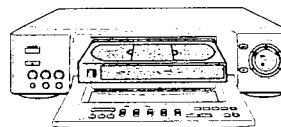
Disabling unwanted programme positions

After tuning the TV channels, you can disable unused programme positions. Positions that are disabled will be skipped later when you press the PROG +/- buttons.

- 1 Press MENU, then select TUNER PRESET and press EXECUTE.
- 2 Press CURSOR $\uparrow/\downarrow$ to move the cursor (■) to MANUAL SET.
- 3 Press CURSOR $\leftarrow/\rightarrow$ to highlight ERASE.
- 4 Press PROG +/- until the programme position you want to disable appears beside "PROG" on the TV screen.
- 5 Press EXECUTE.

Basic Operations

Playing a tape



This section shows you how to play back a video tape.

This VTR automatically detects the tape speed (SP or LP for PAL system video tapes and SP or EP for NTSC system video tapes) with which a video cassette was recorded. If you insert a cassette with its safety tab removed, playback starts automatically.

1 Turn on your TV and tune in to the VTR:

- If the TV is connected to the VTR using the AV (audio/video) cable, set the TV to video input.
- If the TV is connected to the VTR using only the aerial cable, set the TV to the programme position for the VTR.

2 Open the drop down panel and insert a tape.

The VTR turns on automatically. The tape starts playing automatically if its safety tab has been removed. (See page 26.)

3 Set the COLOR SYSTEM switch on the VTR to match the colour system of the tape to be played back.

Normally this switch should be set to AUTO. If streaks appear when playing back a video tape, select the colour system format that matches the format the video tape was recorded with to obtain a better picture. After you are finished, return the COLOR SYSTEM switch to the AUTO position.

For SLV-736EE/836EE/K881/X821/X831

Colour system	Switch position	The display indicator shows
PAL, MESECAM	PAL/MESECAM	"PAL" or "MESECAM"
NTSC	NTSC	"NTSC"

For SLV-X731

Colour system	Switch position	The display indicator shows
PAL, MESECAM	PAL/MESECAM	"PAL" or "MESECAM"
SECAM	SECAM	"SECAM"
NTSC	NTSC	"NTSC"

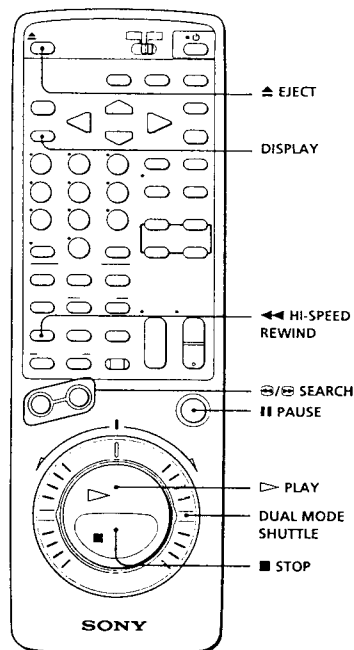
4 Set the NTSC PB switch on the rear of the VTR to match the TV system you are using.

See page 10 for details.

5 Press $\triangleright$ PLAY to start playing.

When the tape reaches the end, the VTR automatically rewinds it to the beginning. (The power remains on.)

Playing a tape (continued)



Tip

- For further information on searching and playback functions, see "Playing/searching at various speeds" on page 32.

Notes

- When a tape is reinserted, the counter returns to "0H00M00S."
- The counter will not work on tape portions with no recording.
- The audio output, tape operation mode, and tape speed are displayed on-screen when you adjust these settings.

When you play back NTSC-recorded tapes

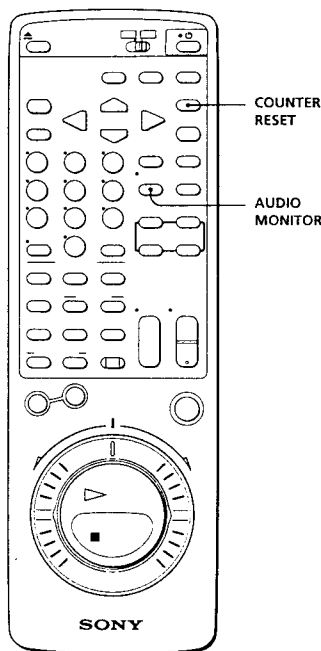
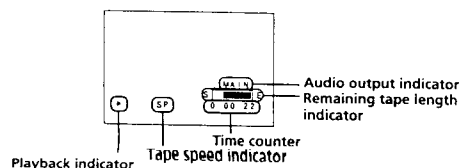
- One of the special features of this VTR is compatibility with the PAL, MESECAM, and NTSC colour systems. Because of this, the remaining tape length may not appear when recording or playing back NTSC broadcasts, but only when you rewind or fast-forward the tape. Look at the cassette to see how much tape remains when recording.
- Depending on the TV you are using, any of the following may occur:
 - the picture becomes black and white
 - the picture shakes
 - no picture appears on the screen
 - black streaks appear horizontally on the screen
 - the colour density increases or decreases
 - the audio becomes normal audio and noise appears in the LP and EP modes.
- If a tape has portions recorded in both the PAL and NTSC video systems, the tape counter reading will not be correct. This discrepancy is due to the difference between the counting cycles of the two video systems.
- You can edit NTSC-recorded tapes onto another VTR, unless the NTSC PB switch on the rear of the VTR is set to ON PAL TV. (See page 10.)

Additional tasks

To	Press
Stop play	■ STOP
Pause play	PAUSE
Resume play after pause	PAUSE or ▷ PLAY
Search forward	Turn the DUAL MODE SHUTTLE (DMS) ring to ⊕ during playback
Search backward	Turn the DMS ring to ⊖ during playback
Fast-forward the tape	Turn the DMS ring to ►► FF during stop
Rewind the tape	Turn the DMS ring to ◄◄ REW during stop
Rewind the tape at high speed	◄◄◄ HI-SPEED REWIND
Eject the tape	⊕ EJECT

Displaying the remaining tape length and time counter

Press DISPLAY to turn the display on or off.



Notes

- When you play a tape recorded in monaural, the sound is heard in monaural regardless of the AUDIO MONITOR setting.
- To play a tape in stereo, you must use a LINE or AUDIO OUT connection.
- If AUDIO MIX in the SET UP MENU is set to ON, the AUDIO MONITOR button doesn't work.

Using the time counter

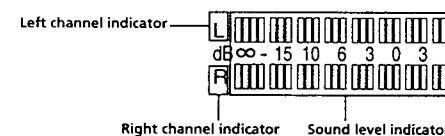
At the point on a tape that you want to find later, press COUNTER RESET to reset the counter to "0H00M00S." When you rewind or advance the tape to this point, refer to the counter.

Playing stereo and bilingual programmes

Press AUDIO MONITOR to select the desired sound. Each press of the button changes the display on the VTR and TV screen.

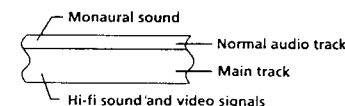
To listen to a		Press AUDIO MONITOR until	
Stereo tape	Bilingual tape	The TV screen shows	The display window indicator shows
Stereo	Main and sub sounds	"STEREO"	"STEREO"
Left channel	Main sound	"LCH"	"MAIN/L"
Right channel	Sub sound	"RCH"	"SUB/R"
Standard sound (monaural)	Standard sound	No indication	No indication

Audio channel and sound level display window

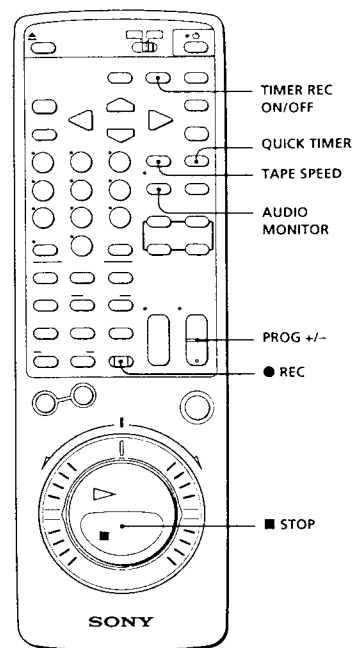


How sound is recorded on a video tape

This VTR records sound onto two different tracks. High-fidelity sound (usually stereo) is recorded onto the main track along with the picture. Monaural sound is recorded onto the normal audio track along the edge of the tape.



Recording TV programmes



Note

- If you insert a tape with its safety tab removed, the VTR starts playing. To record on this tape, cover the tab hole.

Tip

- To select programme positions, you can also use the number buttons on the remote commander. For two-digit numbers, press the +/- (ten's digit) button followed by the number buttons.

This section shows you how to record TV programmes in the most basic way: manual recording. With manual recording, you start the VTR recording when the programme begins, then stop it when the programme ends. The VTR also provides the following ways of recording:

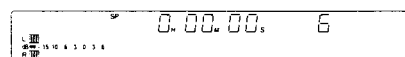
- Manually start recording, then stop it automatically—"Recording using the quick timer" (page 23)
- Automatically start and stop recording—"Recording TV programmes using the timer" (page 27)

1 Turn on your TV and tune in to the VTR:

- If the TV is connected to the VTR using the AV (audio/video) cable, set the TV to video input.
- If the TV is connected to the VTR using only the aerial cable, set the TV to the programme position for the VTR.

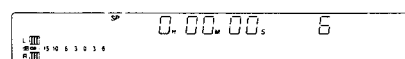
2 Open the drop down panel and insert a tape with its safety tab in place.

3 Select the desired programme position by pressing PROG +/-.



4 Select the tape speed (SP, LP, or EP) by pressing TAPE SPEED.

See "To select tape speeds" on the next page.



5 Start recording by pressing the ● REC button.

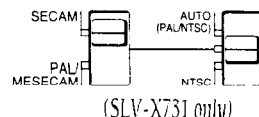
When the tape reaches the end, the VTR automatically rewinds it to the beginning.

To stop recording

Press ■ STOP.

Recording SECAM and MESECAM broadcasts

You can record both SECAM and MESECAM broadcasts with the SLV-X731. Set the COLOUR SYSTEM switch accordingly during recording and playback.



When using the SLV-736EE/836EE/K881/X821/X831, SECAM broadcasts will be recorded with the MESECAM colour system.

Tips

- To cut out an unwanted scene while recording, press ■ PAUSE, turn the DUAL MODE SHUTTLE ring on the VTR to rewind the tape to the beginning of the unwanted scene, then press ■ PAUSE to resume recording.
- The display appears on the TV screen indicating information about the tape, but the information will not be recorded on the tape.
- If you don't want to watch TV while recording, you can turn off the TV. When using a decoder, make sure to leave it on.

Notes

- If you've inserted a tape with its safety tab removed, the VTR ejects it when you press the ● REC button.
- Tapes recorded in EP mode (NTSC system) will not reproduce hi-fi sound when played back.

Notes

- The VTR automatically selects either the NTSC, PAL, or MESECAM colour system when recording TV broadcasts. For correct recording, take note of the following:
 - Before recording (while in the stop or recording pause mode), make sure that the VTR is receiving the incoming signal.
 - While recording, the VTR cannot distinguish different signals, so if the original is changed while recording, the picture's colour may disappear or other problems may occur.

To select tape speeds

When recording, press TAPE SPEED to select either SP or LP for the PAL or MESECAM system, and SP or EP for the NTSC system. A tape recorded in the EP mode runs three times as slowly, and a tape recorded in the LP mode runs twice as slowly as a tape recorded in the SP mode. You can mix different tape speeds on the same tape. When playing back, the VTR automatically detects the tape speed. See the tables below for the maximum recording/playback time in each speed.

PAL and MESECAM colour systems

Tape type	Maximum recording/playback time	
	SP	LP
E-240	4 hrs.	8 hrs.
E-180	3 hrs.	6 hrs.
E-120	2 hrs.	4 hrs.
E-60	1 hr.	2 hrs.

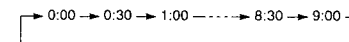
NTSC colour system

Tape type	Maximum recording/playback time	
	SP	EP
T-160	2 hrs. 40 min.	8 hrs.
T-120	2 hrs.	6 hrs.
T-60	1 hr.	3 hrs.
T-30	30 min.	1 hr. 30 min.

Recording using the quick timer

The quick timer enables you to record for a specified period of time in intervals of 30 minutes. Once you specify the recording time, the VTR automatically stops recording. Before you begin, check that the clock is set correctly.

After you start recording, press QUICK TIMER until the desired duration appears in the display window. The TIMER REC indicator on the VTR lights up. Each press increases the recording duration in increments of 30 minutes as shown below.



The recording duration decreases minute by minute to 0:00, then the VTR turns off automatically.

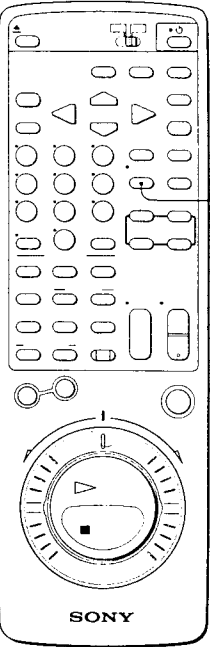
To stop recording

To stop quick-timer recording while the VTR is recording, press TIMER REC ON/OFF to turn off the TIMER REC indicator on the VTR.

To extend the recording duration while recording

Press QUICK TIMER until the desired duration appears in the display window.

Recording TV programmes
(continued)



AUDIO
MONITOR

Note

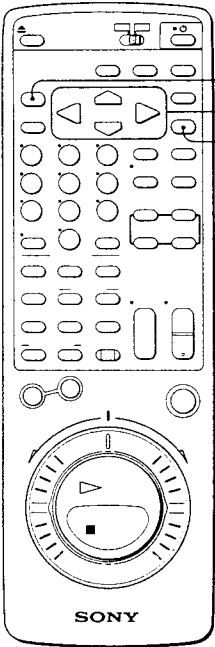
- The AUDIO MONITOR button doesn't work while recording stereo programmes in ZWEITON system.

Recording stereo and bilingual programmes:
in ZWEITON (German stereo) system

This VTR automatically receives and records stereo and bilingual programmes based on the ZWEITON system. When stereo programmes are received, the STEREO indicator appears in the display window; when bilingual programmes are received, the MAIN/L indicator appears in the display window.

To monitor bilingual programmes while recording
Press AUDIO MONITOR to select the desired sound.

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window shows
Main sound	"MAIN"	"MAIN/L"
Sub sound	"SUB"	"SUB/R"
Main and sub sounds	"MAIN/SUB"	"MAIN/L, SUB/R"



MENU
CURSOR
EXECUTE

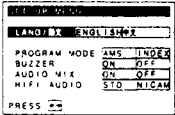
Note

- If you set HI-FI AUDIO to STD, the standard sound is recorded on both the hi-fi and normal audio tracks. (You cannot select the listening sound using AUDIO MONITOR.)

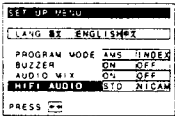
Recording stereo and bilingual programmes:
in NICAM system

This VTR receives and records stereo and bilingual programmes based on the NICAM system. When NICAM broadcasts are received, the STEREO indicator appears in the display window; when bilingual programmes are received, the NICAM indicator lights up in the display window.

1 Press MENU and select SET UP MENU.



2 Set HI-FI AUDIO to NICAM by pressing CURSOR ↑/↓/←/→.



3 Press EXECUTE to store the setting.

Using the NICAM setting, NICAM broadcasts are recorded as in the following table.

Track	Sound recorded	
	Stereo	Bilingual
Hi-fi audio Left channel	Left channel	Main
Hi-fi audio Right channel	Right channel	Sub
Normal audio (monaural)	Standard (usually the mix of left and right channels)	Standard (usually the main sound)

Recording TV programmes (continued)

To monitor stereo and bilingual programmes while recording
Press AUDIO MONITOR to select the desired sound.

Stereo programmes

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window indicator shows
Stereo sound	"STEREO"	"STEREO"
Standard sound	No indication	No indication

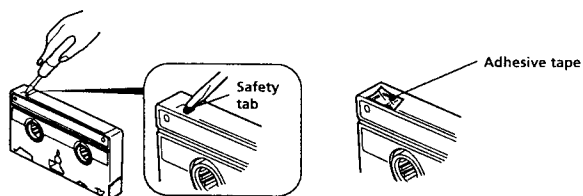
Bilingual programmes

To listen to	Press AUDIO MONITOR until	
	The TV screen shows	The display window indicator shows
Main sound	"MAIN"	"MAIN/L"
Sub sound	"SUB"	"SUB/R"
Main and sub sounds	"MAIN/SUB"	"MAIN/L, SUB/R"
Standard sound	No indication	No indication

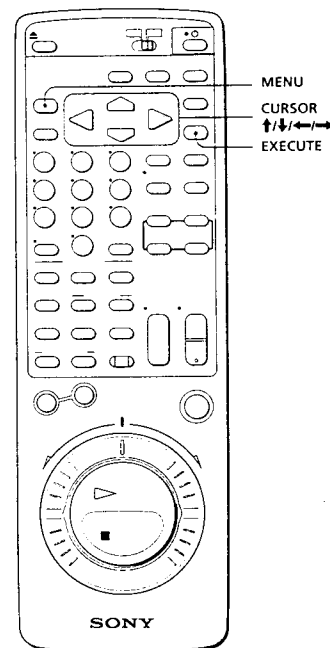
Saving a recording

Video tapes have a safety tab to protect against accidental recording. To prevent accidental erasure of a recording, break off the safety tab with a screwdriver or other tool. A tape with its safety tab removed ejects if you try to record on it.

To record on a tape with its safety tab removed, cover the tab hole with adhesive tape.



Recording TV programmes using the timer



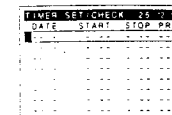
This section shows you how to let the VTR automatically start and stop recording TV programmes. You can preset up to eight programmes within a one month time frame.

Before you start...

- Check that the clock is set correctly.
- Insert a tape with its safety tab in place. Make sure the tape is longer than the total recording time.
- Turn on your TV and tune in to the VTR.

1 Press MENU and select TIMER SET/CHECK, then press EXECUTE.

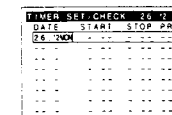
A short beep alerts you if the clock needs to be set.



2 Set the date to start recording:

1 Press CURSOR →.

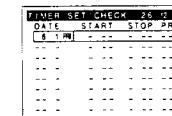
Make sure today's date is highlighted. If it isn't, reset the clock to the correct time.



2 Press CURSOR ↑ to set the month and date.

The day of the week is set automatically.

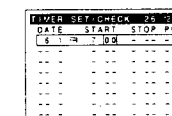
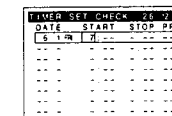
To record the same programme every day or the same day once a week, see "Daily/weekly recording" on page 29.



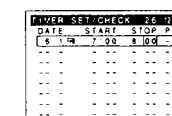
3 Set the time to start recording:

1 Press CURSOR → to highlight the hour under "START," then press CURSOR ↑/↓ to set the hour.

2 Press CURSOR → to highlight the minutes under "START," then press CURSOR ↑/↓ to set the minutes.



4 Press CURSOR →, then set the time to stop recording in the same way.



(continued)

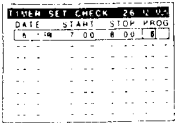
Recording TV programmes using the timer (continued)

- Tips**
- To set the channel, you can also use the PROG +/- or number buttons.
 - To record video sources from LINE IN 1 or 2 jacks, press INPUT SELECT to display "L1" or "L2" in the "PROG" position.

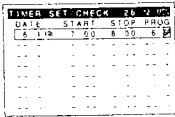
- Tip**
- To set the recording tape speed, you can also use TAPE SPEED.
- Tip**
- To change or correct a setting before confirming it, press CURSOR → to highlight the item you want to change and reset it.

- Notes**
- If the power is interrupted for more than one hour while the VTR is standing by for recording, the timer settings are cleared. Reset the timer.

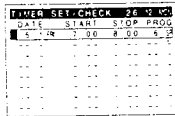
- 5** Press CURSOR →, then press CURSOR ↑/↓ to select the programme you want to record. Only the channels preset in the VTR will appear.



- 6** Press CURSOR →, then press CURSOR ↑/↓ to select the tape speed, SP (standard play) or LP (long play). See "To select tape speeds" on page 23.



- 7** To confirm your programme, press CURSOR →. All the settings stop being highlighted and the cursor (|) appears in the leftmost column. To preset another timer setting, move the cursor to the next line using CURSOR ↓ and repeat steps 2 to 7.



- 8** After making the desired timer settings, press EXECUTE.

- 9** Press TIMER REC ON/OFF. The TIMER REC indicator on the VTR lights up and the VTR turns off and stands by for recording. The VTR automatically turns on and starts recording at the preset start time, and turns off at the preset stop time.

To stop recording

To stop while the VTR is recording a program, press TIMER REC ON/OFF to turn off the TIMER REC indicator on the VTR.

To use the VTR while recording

You can do the following tasks during timer recording.

To	Press
Reset the counter to "0H00M00S"	COUNTER RESET
Display tape information on the TV screen	DISPLAY
Check the timer settings	MENU, and select TIMER SET/CHECK

Using the VTR before timer recording begins

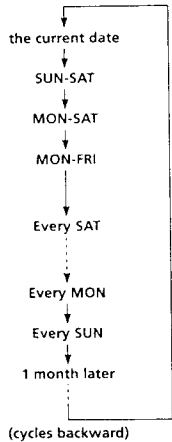
Press TIMER REC ON/OFF to turn off the TIMER REC indicator on the VTR, then press ⏻ (on/standby). The VTR is ready for use.

After using the VTR, press TIMER REC ON/OFF again to turn on the TIMER REC indicator on the VTR. Remember to reset the VTR to stand by for recording before the time you've set the VTR to start recording, or the timer setting will be cancelled.

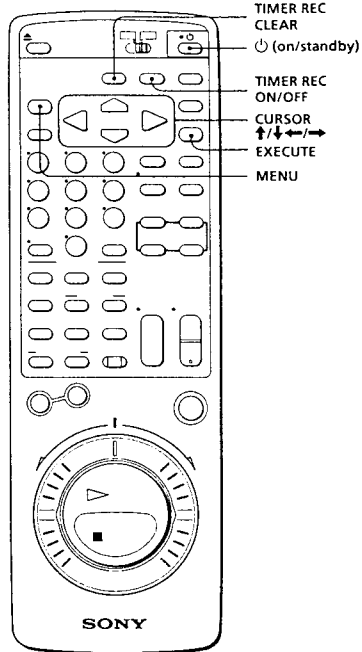
Daily/weekly recording

Daily recording records the same programme every day of the week; weekly recording records the same programme on the same day, every week.

When you set the date to start recording in step 2 of "Recording TV programmes using the timer," press D - until the desired day appears. Each time you press the button, the indication changes as shown on the left.



Checking/changing/ cancelling timer settings



This section shows you how to check, change and cancel the timer settings after you've stored them in the VTR.

Before you start...

Turn on your TV and tune in to the VTR.

- 1 Press **TIMER REC ON/OFF** to turn off the **TIMER REC** indicator on the VTR.

- 2 Press **(on/standby)** to turn on the VTR, then press **TIMER CHECK** to display the **PROGRAM LIST** on the TV screen.

DATE	START	STOP	PROG
8-1 PM	7:00	8:00	8-30
28 TUE	8:30	10:15	50 P
MON-SAT	21:00	0:00	L1 P
EVERY SUN	9:55	12:30	12 P
--	--	--	--
--	--	--	--
--	--	--	--

- 3 Check the timer settings:

- If you do not want to change or cancel the settings, press **EXECUTE**, then press **TIMER REC ON/OFF** to return to recording standby.
- If you want to change or cancel the settings, press **CURSOR** $\uparrow/\downarrow$ to move the cursor (I) to the setting you want to change or cancel.

DATE	START	STOP	PROG
8-1 PM	7:00	8:00	8-30
28 TUE	8:30	10:15	50 P
MON-SAT	21:00	0:00	L1 P
EVERY SUN	9:55	12:30	12 P
--	--	--	--
--	--	--	--
--	--	--	--

- 4 Change or cancel the timer setting:

- To change the setting, press **CURSOR** $\leftarrow/\rightarrow$ to highlight the item you want to change, and reset it using **CURSOR** $\uparrow/\downarrow$. Then, press **CURSOR** $\rightarrow$ to move the cursor to the leftmost column.
- To cancel the setting, press **TIMER REC CLEAR**.

DATE	START	STOP	PROG
8-1 PM	7:00	8:00	8-30
28 TUE	8:30	10:15	50 P
MON-SAT	21:00	0:00	L1 P
EVERY SUN	9:55	12:30	12 P
--	--	--	--
--	--	--	--
--	--	--	--

- 5 Press **EXECUTE**.

The VTR returns to the original screen. When there are any other timer settings left in the **TIMER SET/CHECK** menu, turn the VTR off to return to recording standby.

To check the timer settings during timer recording

Press **MENU** and select **TIMER SET/CHECK**. After checking, press **EXECUTE** to turn off the display.

Case 1
Programme 1 (listed first) 10:00 → 10:50

Programme 2 (listed next) Will be cleared 11:30

Case 2
Programme 1 10:00 → 10:50
Programme 2 11:40
20 seconds will not be recorded

Case 3
Programme 1 10:00 → 11:30
Programme 2 10:45 → 12:15
Will be cut off

When the timer settings overlap

The VTR will not record overlapping programmes. If any of your timer settings overlap, change the settings.

Case 1: If you preset two programmes to start recording at the same time...

The programme listed first on the **PROGRAM LIST** has priority over the other programmes. The timer settings of lower priority programmes will be erased from the **PROGRAM LIST** when the first programme begins recording.

Case 2: If you preset programme 2 to start recording at the same time you preset programme 1 to finish recording...

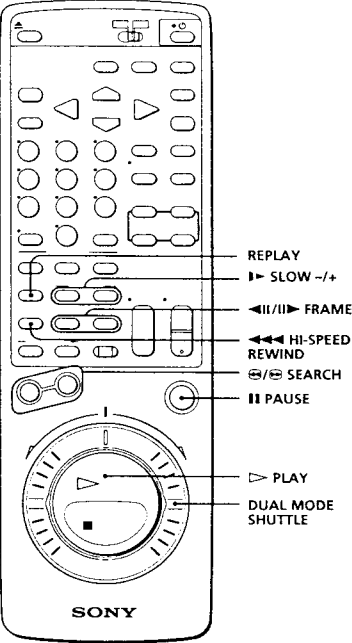
The last 20 seconds of programme 1 will not be recorded because the VTR will enter recording pause for programme 2 before programme 1 is finished.

Case 3: If you preset programme 2 to start recording before programme 1 is finished recording...

Programme 2 will start recording before programme 1 has finished.

Additional Operations

Playing/searching at various speeds



- Tip**
- Adjust the picture using the **▼/▲ TRACKING** **NORMAL/SLOW STILL** **ADJUST** buttons if:
 - Streaks appear while playing in slow motion.
 - Bands appear on the top or bottom while pausing.
 - The picture shakes while pausing.

- Note**
- If you use these functions in the LP mode, noise may appear or there may be no colour.

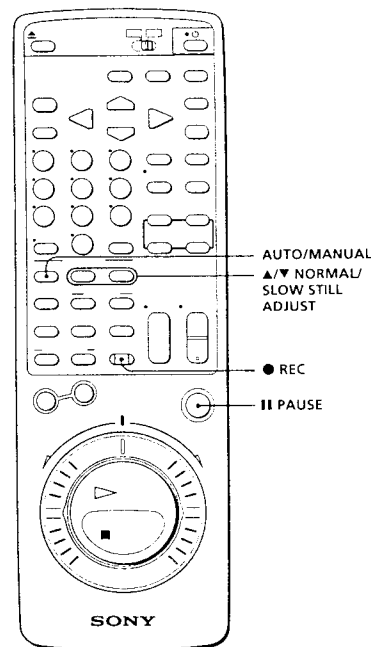
You can play back a tape at various speeds: high-speed, slow motion, frame by frame and so on. These options are also useful for searching for a specific point during playback. The sound is muted during these operations.

Playback options	Operation	To resume normal playback
Playing at various speeds:	During playback, turn the DUAL MODE SHUTTLE ring right or left to: One-fifth the normal speed 1/5 Twice the normal speed X2 High speed or	Release the ring.
Fast-forwarding/ Rewinding	During stop, turn the DUAL MODE SHUTTLE ring to FF or to REW and release.	Press PLAY.
Viewing the picture during fast-forward or rewind	During fast-forward, turn the DUAL MODE SHUTTLE ring to FF. During rewind, turn the ring to REW.	To return to the previous mode, release the ring.
Locking in a high-speed picture	During playback or pause, press SEARCH or SEARCH. To change direction, press FRAME (backward) or FRAME (forward).	Press PLAY.
Locking in a slow-motion picture	During playback or pause, press SLOW -/+. To change direction, press FRAME (backward) or FRAME (forward).	Press PLAY.
Playing frame by frame	During pause, press FRAME to advance the picture one frame or FRAME to reverse the picture one frame.	Press PLAY.
Playing in reverse	During playback, press FRAME.	Press PLAY.

- Note**
- When rewinding at high speed, you will not see the time counter.

Playback options	Operation	To resume normal playback
Replaying a scene	During playback or pause, press REPLAY and hold it down until the desired scene appears. When you release the button, the scene is played back in slow motion.	Press PLAY or PAUSE.
Rewinding at high speed	Press HI-SPEED REWIND.	Press PLAY.
Rewind and restart play	During stop, press PLAY on the VTR while holding the DUAL MODE SHUTTLE ring on the VTR at the REW position, or while pressing down HI-SPEED REWIND on the VTR.	—

Adjusting the picture

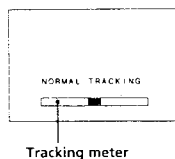


The VTR automatically adjusts the picture for the best possible playback or recording. If, however, you find the automatic adjustment unsatisfactory, you can adjust the picture manually.

Adjusting the tracking

Though the VTR automatically adjusts the tracking when playing a tape (the AUTO TRACKING indicator flashes in the display window, then lights steadily), distortion may occur if the tape was recorded in poor condition. If so, manually adjust the tracking condition.

Press the ▼/▲ TRACKING NORMAL/SLOW buttons to display the tracking meter. The distortion should disappear as you press one of the two buttons. If you cannot get a clear picture with manual adjustment, press TRACKING AUTO/MANUAL to return to automatic adjustment.



Reducing streaks and/or snow

Set the PICTURE switch on the VTR to RENTAL PICTURE.

About Adaptive Picture Control (APC)

Adaptive Picture Control (APC) automatically improves recording and playback quality by adjusting the VTR to the condition of the video heads and tape. To maintain better picture quality, we recommend that you leave APC on (with the APC indicator in the display window lit).

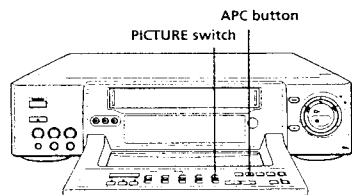
To use APC during playback

The APC function automatically works on all types of tapes, including rental tapes. You can play a tape using the APC function even if the tape was not recorded with it.

To use APC while recording

Whenever you insert a tape and first start recording, the VTR adjusts to the tape using the APC function (the APC indicator flashes rapidly). This adjustment is retained until the tape is ejected. There is a short delay before the VTR actually starts recording while the VTR analyzes the tape.

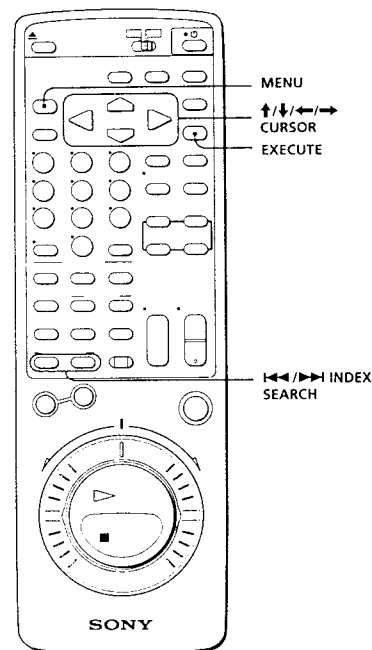
If you want to start recording precisely the first time you record, set the VTR to recording pause mode (the APC indicator flashes slowly) and press ● REC to let the VTR analyze the tape. When the APC indicator stops flashing, press II PAUSE to start recording. Recording begins immediately.



Notes

- Tapes recorded using the APC function are played back normally on VTRs that do not have the APC function.
- Press II PAUSE to release recording after the APC indicator stops flashing. If you start recording before the APC indicator stops

Searching using the index function



The VTR automatically marks an index signal at the point where recording starts (with the exception of when you start recording from recording pause). Use this as a reference to find the beginning of the recording. Since the index number indicates the relative position from the current position, specify how many index signals ahead or behind the specific index signal is from the current position.

1 Insert an indexed tape into the VTR.

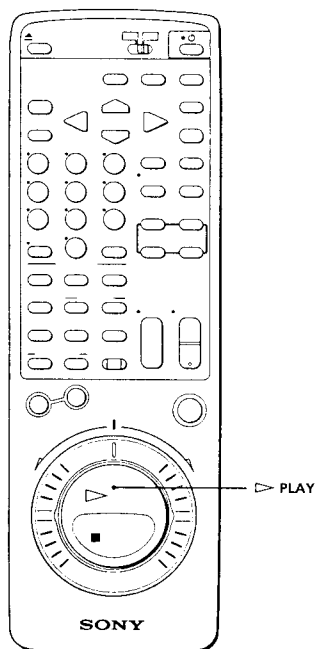
2 Press the ◀/▶ INDEX SEARCH buttons repeatedly until the index number you want appears on the TV screen:

- To locate succeeding programmes, press ▶ INDEX SEARCH.
- To locate preceding programmes, press ◀ INDEX SEARCH.

The VTR starts searching and the index number on the TV screen counts down to zero. Playback starts automatically from that point.



Karaoke sing-along



Tip

- You can also sing along with TV broadcasts or music played back on equipment connected via the LINE IN jacks on the VTR. You can also connect two microphones to sing duets. Connect the microphone (or two microphones) to the MIC 1 and/or MIC 2 jack(s).

Notes

- If the sound is reproduced through a stereo amplifier, turn down the volume of the amplifier before operation.
- If the microphone volume is too high, the sound may be distorted.
- If feedback occurs, turn down the microphone volume or the sound volume of the TV, or move the microphone away from the speakers.

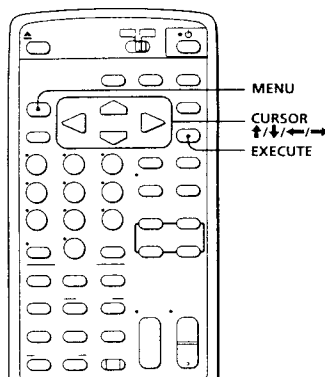
You can sing along with a karaoke tape played back on the VTR, to a TV broadcast, or to music played back on equipment connected to the LINE IN jacks on the VTR. You can also connect two microphones to sing duets. Connect the microphone (or two microphones) to the MIC 1 and/or MIC 2 jack(s).

To sing along with karaoke tapes

- Insert a karaoke cassette.**
The VTR turns on automatically. If the safety tab of the cassette is removed, playback also starts automatically.
- Turn on the TV.**
If you have made the VTR/TV connection via the aerial socket, select the programme position for the VTR on the TV.
- Set the KARAOKE ON/OFF switch to ON.**
When not using the karaoke function, set this switch to OFF.
- Set the COLOR SYSTEM switch on the VTR to control the colour system of the playback source.**
Normally this switch should be set to AUTO. If streaks appear when playing back a video tape, select the colour system format that matches the format the video tape was recorded with to obtain a better picture. After you are finished, return the COLOR SYSTEM switch to the AUTO position.
- Press ▷ PLAY.**
Playback starts.
- Turn on and sing into the microphone(s).**
- Adjust the volume of the microphone(s) with the MIC VOL 1 and/or MIC VOL 2 control(s) while singing. (To use the controls, push them in so that they pop out.)**
- Adjust the echo effect with the ECHO control while singing. (Push the control in so that it pops out.)**
The echo effect is applied to both microphones.

For optimum echo effect

Adjust the microphone volume to a little higher level than the music volume to obtain optimum echo effect.



Notes

- When you want to change the PROGRAM MODE settings, exit KARAOKE PROGRAM mode.
- Searching while in KARAOKE PROGRAM mode is not related to "Searching using the index function" on page 35. The PROGRAM MODE settings only apply to search in KARAOKE PROGRAM mode.

Tip

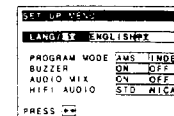
- AMS (Automatic Music Sensor) searches for blank spaces at least 1 seconds long between recorded tape segments.
- INDEX searches for indices that have already been inserted on the tape. Check the cassette box to see if a tape is index-compatible or not.

Notes

- You can enter up to 10 songs, indexed from 1 to 99, on your custom karaoke list.
- When you enter the 10th song, the field for the first song in the list becomes highlighted again.
- You cannot delete settings, but you can overwrite them. If you set the KARAOKE ON/OFF switch to OFF, the list settings are cleared.
- If there is excessive noise between the songs during AMS search, the preset song order may be tweaked.

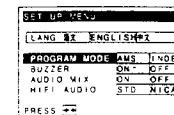
You can sing along with tapes played back on this VTR. For a more fulfilling karaoke experience, the VTR also allows you to index and edit any tape, so that you can perform the songs in the desired order. First you must set your VTR according to the tape you are using; some tapes (index-compatible tapes) come with preset indices, while others do not. Follow the procedure below.

- Press MENU. Then press CURSOR ↑/↓ to move the cursor (I) to SET UP MENU, and press EXECUTE.**



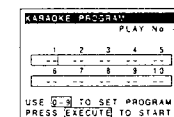
- Press CURSOR ↑/↓ to highlight PROGRAM MODE, then press CURSOR ←/→ to highlight either INDEX or AMS.**

If you are using an index-compatible tape, set to INDEX. If the tape is not index-compatible, or if you are not sure of the tape type, set to AMS. When you enter KARAOKE PROGRAM mode, the PROGRAM MODE setting appears in the display window for confirmation.

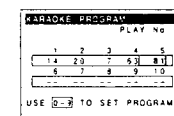


Making a custom karaoke list

- Set the KARAOKE ON/OFF switch on the VTR to ON.**
- Press MENU. Then press CURSOR ↑/↓ to move the cursor (I) to KARAOKE PROGRAM, and press EXECUTE.**
The KARAOKE PROGRAM menu appears on the TV screen.
The selected PROGRAM MODE setting appears in the display window.



- Use the number buttons to select the desired song order. When you are finished, press EXECUTE.**
The list requires two-digit numbers; for single-digit numbers, first press "0" and then the song number. Before playback, the tape automatically rewinds to the beginning, and playback starts in the order specified in step 2. While the VTR searches for a song, its number flashes in the display window. When it has been found, the number lights steadily.



Karaoke sing-along (continued)

Notes

- The optional microphone has a linear rewind function, but if you rewind past the beginning of the current song, the preset song order may be tweaked.
- These functions/buttons are operable during playback in KARAOKE PROGRAM mode:
 - To stop playback, press ■ STOP.
 - To turn the VTR off during playback, press ⏻ (on/standby).
 - To eject the cassette, press ⏏ EJECT.
- If you press a button other than those listed above, you automatically exit the KARAOKE PROGRAM mode.
- When all the songs in the list have been played, the tape stops.
- When not used during playback in KARAOKE PROGRAM mode as in step 4, the INDEX SEARCH function returns to its ordinary state.

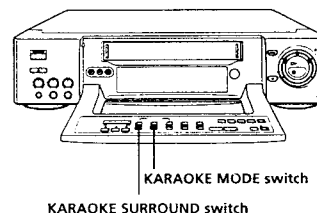
4 To rewind to the beginning of the song being played back, and to fast-forward to the next song, use the ⏮/⏭ INDEX SEARCH buttons.

You cannot search beyond the scope of the current song with the remote commander.

5 To change the settings when in KARAOKE PROGRAM mode, repeat steps 2 to 3.

Notes

- Vocal reduction does not work with the following tapes:
 - Tapes on which different vocal sounds are recorded on the left and right channels, such as a duet.
 - Monaural recorded tapes.
 - Tapes on which sound sources are recorded with strong echoes and/or chorus.
 - Vocal assist does not work with the following tapes:
 - Hi-fi tapes on which a single sound is recorded on the left and right channels.
 - Monaural recorded tapes.
- To use the KARAOKE MODE switch, the KARAOKE SURROUND switch, the buttons on the optional microphone and the KEY CONTROL buttons, the KARAOKE ON/OFF switch must be set to ON.



Reducing the vocals

Since the vocals on the playback source media can be reduced with this function, you can enjoy singing with hi-fi stereo music video tapes or hi-fi stereo tapes on which music programmes have been recorded from TV.

Set the KARAOKE MODE switch to KARAOKE PON, which minimises the singer's voice.

To cancel the vocal reduction

Set the KARAOKE MODE switch to OFF.

When not in use, this switch should be set to OFF.

Vocal assist

With this function you can make use of karaoke stereo hi-fi tapes. These tapes have only the accompaniment music on the left channel and the accompaniment plus the vocal on the right channel.

If you forget the words while singing and stop singing into the microphone(s), this function will automatically fill in the vocal for you using the recorded vocal.

Set the KARAOKE MODE switch to VOCAL ASSIST.

To cancel the vocal assist

Set the KARAOKE MODE switch to OFF.

When not in use, this switch should be set to OFF.

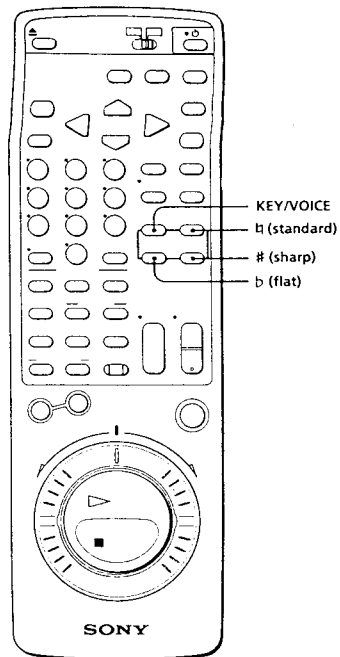
Surround sound

With this function you can adjust the karaoke surround sound effect to suit your location. If you are in a large room, such as a meeting hall, etc., set the KARAOKE SURROUND switch to HALL. If you are in a small room such as a bar, set the KARAOKE SURROUND switch to KARAOKE BAR.

To cancel the surround sound effect

Set the KARAOKE SURROUND switch to OFF.

When not in use, this switch should be set to OFF.



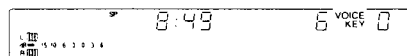
Changing the pitch

While you are singing, you can change the tone of your voice or tune to suit each other.

1 Set the KARAOKE ON/OFF switch to ON.

2 Press KEY/VOICE.

With each press, the VOICE/KEY indicator in the display window toggles between displaying "VOICE" and "KEY."



To change the pitch of the tune, light the KEY indicator.

To change the pitch of your voice, light the VOICE indicator.

3 Press # (sharp) to raise the pitch and b (flat) on the VTR or remote commander to lower the pitch. To reset the default pitch, press a (standard).

To	Press	Range	Display indicator
raise the pitch	# (sharp)	7 half notes	"#1" to "#7"
reset the default pitch	a (standard)	—	"—"
lower the pitch	b (flat)	7 half notes	"b1" to "b7"

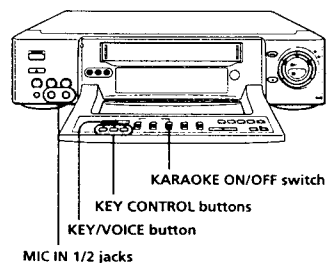
Using the microphone

Use the ON/OFF switch on the microphone to turn it on or off.

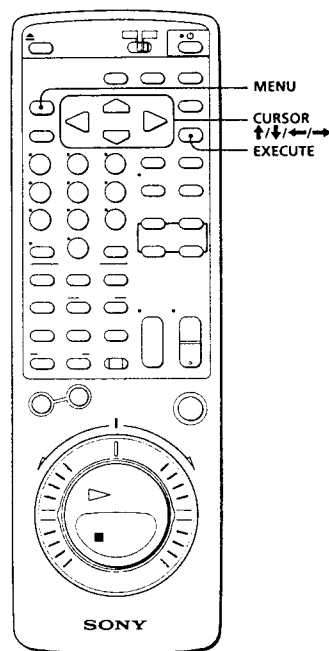
Before you begin, make sure that the microphone lead is plugged into either the MIC IN 1 or MIC IN 2 jacks on the front of the VTR.

Tips

- To be able to change the pitch and to repeat playback of songs via the microphone, use the F-KM1 microphone (not supplied). For details, consult your Sony dealer.



Game play



One of the special features of this VTR is a true video game, which adds lots of enjoyment to the basic VTR concept of recording and playback. This provides an alternative to expensive and complex TV games; it's a simple, colourful pleasure for the rest of us.

The goal

The goal of this game is to collect as many points as possible before running out of time. You accumulate points by filling colour-coded rows with squares of matching colour.

Outline

You create squares by converting a bouncing ball into a coloured square. You select the colour of the square with your three-coloured (green, red, yellow) control bar, which is located at the centre of the screen. When the ball passes through the bar, it is instantly converted into a small, square icon. The colour of the icon depends on which bar area the ball hits. The icon then follows the path of the ball; if the ball hit the control bar on the way up, the icon continues upwards through the bar, and vice versa.

At the top of the screen are three horizontal rows, one for each of the three colours. If the ball passes through, say, the green area on your bar, the green icon follows the path of the ball until it bounces against one of eight square areas in the green row at the top. If it hits a vacant (recessed) area, that area is instantly filled (raised). The icon then changes back into a bouncing ball, which you must try to "catch" again. If the icon hits a filled area, it simply bounces off, already retransformed into the ball. On the contrary, if you don't manage to catch the ball with the bar, it will clear the first filled area it bounces against on the way up.

Game progress

To start a game, press MENU. Select GAME, and press EXECUTE. Press EXECUTE to read the game instructions, and press EXECUTE again to get started.

To move the control bar, keep the remote commander aimed at the remote sensor on the VTR and press CURSOR ◀/▶.

As the game progresses, the colour schemes change to make it more difficult to fill the rows at the top. If you still manage to do that, you still have to worry about an increasingly faster ball.

Collecting points

When a row at the top has been completely filled, the rows are shuffled, the colour order on the control bar changes, and you receive a certain amount of points. Exactly how many points you score for a filled row depends on your game progress. As a bonus, 30 extra seconds are added to the game timer for every filled row.

Two scores are shown at the top of the screen: "BEST" displays the highest score achieved during this game session, and "YOU" shows your current score.

Game over

This is a real-time game, and you start out with 100 seconds. The timer at the top right of the screen displays the remaining amount of time. When the timer reaches "0000," the game is over. Try, try, try again...

Tip

- To pause the game, press EXECUTE. Press again to resume play.

Notes

- To stop playing, press MENU during play, not during game pause.
- If you press other buttons than those described in this section, you temporarily exit game play and the screen turns gray. The game screen appears a moment later.
- Long game play sessions consume much battery power, and speed up battery exhaustion.
- Due to discrepancies between the television systems, the size of the game screen may differ between PAL and NTSC monitors.

Looking at menu options

Note

- PROGRAM MODE settings only apply when you are in KARAOKE PROGRAM mode.

Tip

- See "How sound is recorded on a video tape" on page 21.

The **SET UP MENU** provides you with various options to set up and customise your VTR. See the table below for the available menu choices. Initial settings are indicated in bold letters.

Menu choices	
Menu option	Set this option to
LANG/ 中文	ENGLISH to set the on-screen language to English. - 中文 to set the on-screen language to Chinese.
PROGRAM MODE (K881)	AMS to search for recording start points on non-indexed tapes. INDEX to search for recording start points on indexed tapes. For details, see page 37.
BUZZER	ON to make the buzzer sound when an illogical setting is made. - OFF to turn the buzzer off.
AUDIO MIX (736EE/836EE/ X821/X831)	- ON to listen to the hi-fi and normal audio tracks at the same time. The AUDIO MONITOR button becomes inoperable OFF to select the sound using the AUDIO MONITOR button.
HIFI AUDIO (836EE/K881/X831)	STD to record standard sound on a hi-fi audio track. NICAM to record NICAM broadcasts on a hi-fi audio track. For details, see page 25.
DIMMER (EXCEPT K881)	ON to dim the FIP light. - OFF to brighten it.
TIMER REC-REW (736EE/X731/X821)	ON to automatically rewind the tape after all timer settings have been recorded. - OFF to cancel this setting.*

* If the tape has been recorded to the end, the VTR rewinds it regardless of this setting.

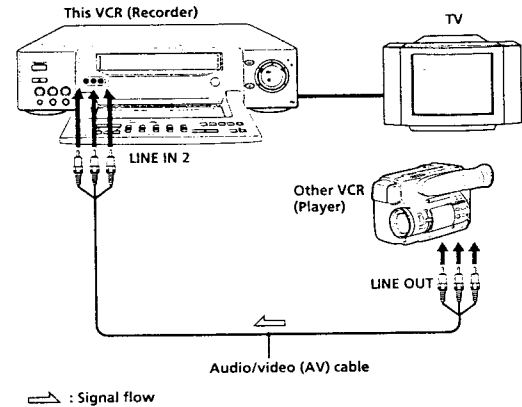
Editing Editing with another VTR

Tips

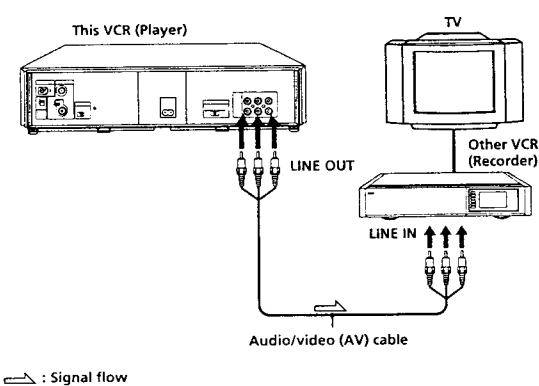
- Make sure you connect the plugs to jacks of the same colour.
- If the other VTR is a monaural type, leave the red plugs unconnected.

This section shows you how to edit to or from another VTR or camcorder. You can make a copy of a tape using this VTR for recording or playback.

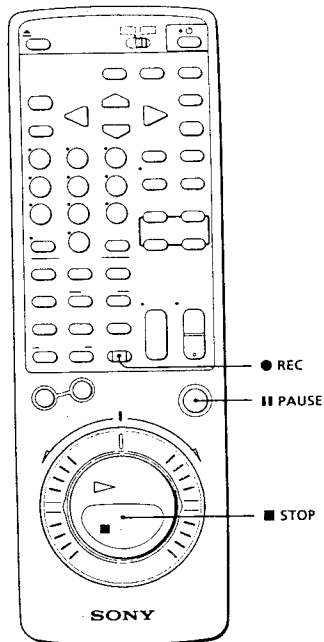
How to hook up to record on this VTR



How to hook up to record on another VTR



Editing with another VTR (continued)



Operation (when recording on this VTR)

Before you start editing

- Press INPUT SELECT to display "L2" in the display window.
- Press TAPE SPEED to select the recording tape speed (SP/LP for the PAL or MESECAM systems, or SP/EP for the NTSC system).
- On this VTR, set the PICTURE switch on the VTR to EDIT. If the other VTR has a similar switch, set it to EDIT as well.

1 Insert a source tape with its safety tab removed into the other (playback) VTR. Search for the point to start playback and set it to playback pause.

2 Insert a tape into this (recording) VTR. Search for the point to start recording and press **II PAUSE**.

3 Press the **● REC** button on this VTR and set it to recording pause.

4 To start editing, press the **II PAUSE** buttons on both VTRs to release the VTRs from pause.
For best results, press the pause button on the other VTR before pressing **II PAUSE** on this VTR.

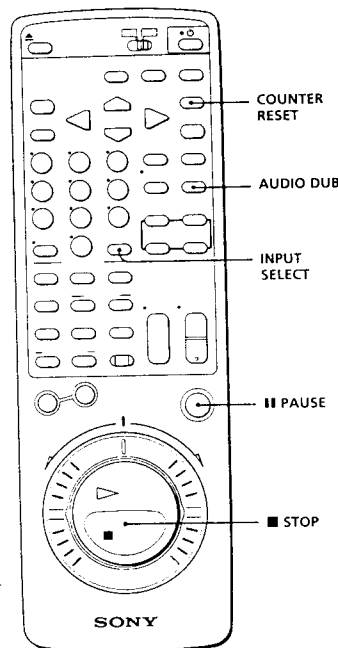
To stop editing

Press the **■ STOP** buttons on both VTRs.

Tips

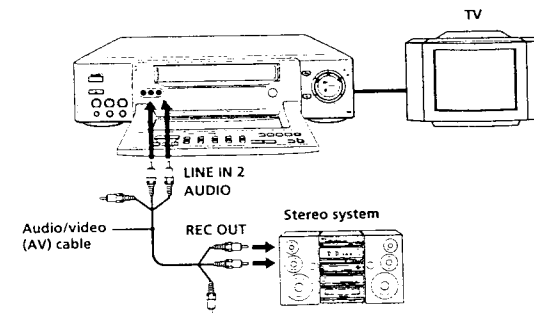
- To make your editing more precise, use the pause buttons on both VTRs.
- To cut out unwanted scenes while editing, press **II PAUSE** on this VTR when an unwanted scene begins. When it ends, press **II PAUSE** again to resume recording (assemble editing).

Audio dubbing



You can add music or narration on the normal audio track. The monaural sound previously recorded is replaced while the original picture and hi-fi sound on the main track are retained. (See page 21.)

How to hook up



Operation

Before you start editing

Press INPUT SELECT to display "L2" in the display window.

1 Play a recording source. Search for the point to start playback and set it to playback pause.

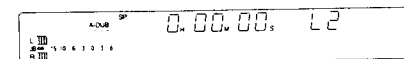
2 Insert the prerecorded tape into this VTR. Search for the end of the section you want to dub new sound to and press **II PAUSE**.
Make sure that the tape has its safety tab in place so that you can dub new sound onto it.

3 Set the KARAOKE MODE ON/OFF switch to ON.

4 Press COUNTER RESET on this VTR to reset the counter to "0H00M00S."

5 Rewind the tape to the beginning of the section.
This VTR pauses.

6 Press AUDIO DUB.
The A-DUB indicator lights up in the display window.



Note

- You must be in playback pause mode before pressing AUDIO DUB. (If you are in recording pause mode, you cannot use the audio dubbing features.)

(continued)

Audio dubbing (continued)

Tip

- See “How sound is recorded on a video tape” on page 21.

7 To start editing, simultaneously press the II PAUSE buttons on this VTR and the stereo system.

When the counter of this VTR reaches “0H00M00S,” audio dubbing stops automatically.

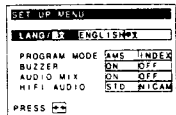
To stop editing

Press the ■ STOP buttons on this VTR and the stereo system.

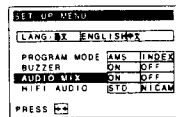
Listening to both audio tracks during playback

When playing an audio-dubbed tape, you have a choice of listening sound. To listen to the sounds recorded on the hi-fi audio and normal audio tracks at the same time, use the SET UP MENU.

1 Press MENU and select SET UP MENU.



2 Set AUDIO MIX to ON by pressing CURSOR ↑/↓/←/→.



3 Press EXECUTE to store the setting.

The AUDIO MONITOR button becomes inoperative, and the sound you hear is mixed.

After playing the audio-inserted tape, reset AUDIO MIX to OFF.

Note

- If AUDIO MIX remains ON, the AUDIO MONITOR button remains inoperative.